Page 9, replace the paragraph starting at line 18 and ending at line 20 with the following new paragraph:

-- Also shown in Figs. 2A and 2B are spring-action tabs 6 formed integrally with the housing 3. These are for fastening the annular cover 25 (omitted in Figs. 2A and 213) in place.--

IN THE CLAIM:

Please cancel claim 1 without prejudice.

Please replace claim 2 as follows.

2. (Amended) Grass-cutting head as claimed in claim 40, wherein:

said feed mechanism includes a spring-action member;

said stop opposes action of said spring-action member when the head is opened to render said spool accessible from the outside.

Please replace claim 3 as follows.

3. (Amended) Grass-cutting head as claimed in claim 2, wherein:

said stop includes retention members that act against the force of said spring-action member, preventing said spring action member from escaping from the housing when the housing is open to enable said supply of cutting line to be wound onto the spool.

Please cancel claim 4 without prejudice.

Please replace claim 5 as follows.

5. (Amended) Grass-cutting head as claimed 40, wherein:

said feed mechanism comprises stop teeth integral with the spool and arresting stops engaging with said stop teeth to define angularly offset positions of the spool;

said feed mechanism includes an actuating slider is provided to engage and disengage of said stop teeth and said arresting stops causing an angular step by step rotation of said spool, the action of the actuating slider being opposed by a spring-action member.

Please replace claim 6 as follows.

6. (Amended) Grass-cutting head as claimed in claim 40, wherein:

said feed mechanism comprises in combination an actuating slider, a first series of teeth integral with said spool and a second series of teeth integral with said spool, teeth of the first series engaging with a first stop or group of stops rotationally fixed to said housing and teeth of the second series engaging with a second stop or group of stops rotationally fixed to said housing, positions of arrest of said spool defined by the first series of teeth and by the first stop or group of stops being angularly offset relative to positions of arrest of said spool defined by the second series of teeth and by the second stop or group of stops;

and movement of said actuating slider causes an axial movement of the spool between two positions to bring the teeth of the first series or the teeth of the second series

alternately into engagement with their respective stops, the spring-action member exerting a force on the spool.

Please replace claim 7 as follows.

7. (Amended) Grass-cutting head as claimed in claim 40, wherein said feed mechanism comprises two series of stop teeth integral with said spool and engaging with moveable stops actuated by an actuating slider, action of said actuating slider being opposed by a spring-action member.

Please replace claim 8 as follows.

8. (Amended) Grass-cutting head as claimed in claim 7, wherein:

said housing includes a housing portion through which extends an axial hub of a rotary drive, and said spool being placed in said housing portion;

axially elongate openings in said support, through which pass said moveable stops carried by said actuating slider and engage with the teeth on the spool; and

an annular cover closes said housing and extends around the support for said spool.

Please replace claim 9 as follows.

9. (Amended) Grass-cutting head as claimed in claim 8, wherein said support has end teeth engaging with corresponding end teeth on said housing portion.

10. Grass-cutting head as claimed in claim 9, wherein said end teeth are shaped so as to allow rotation of the support and of the spool in a winding direction and prevent rotation in an opposite direction.

Claim 11 has not been changed by this Amendment and remains as follows:

11. Grass-cutting head as claimed in claim 8, wherein said support for said spool has a cylindrical wall around which the spool is placed and said support also includes a supporting collar supporting said spool.

Claim 12 has not been changed by this Amendment and remains as follows:

12. Grass-cutting head as claimed in claim 11, wherein said support has a cylindrical support in which said actuating slider moves, the actuating slider being elastically pressed by said spring-action member.

Claim 13 has not been changed by this Amendment and remains as follows:

13. Grass-cutting head as claimed in claim 11, wherein:

a generally cylindrical closing wall extends from said supporting collar, said annular cover is mounted on said cylindrical closing wall.

Claim 14 has not been changed by this Amendment and remains as follows:

14. Grass-cutting head as claimed in claim 13, wherein:

a circular skirt defines a circumferential wall of the housing, said annular cover has an edge that embraces said circular skirt.

Please cancel claims 15 - 35 without prejudice.

Please replace claim 36 as follows.

36. (Amended) Grass-cutting head as claimed in claim 40, wherein said spool has projections to facilitate rotation of the spool by hand in the housing in order to cause the supply of line to be wound up.

Please cancel claim 37 without prejudice

Please replace claim 38 as follows.

38. (Amended) A cutting head in accordance with claim 40, wherein:

said feed mechanism bypasses said winding mechanism to feed cutting line off said spool.

Please replace claim 39 as follows.

39. (Amended) A cutting head in accordance with claim 40, wherein:

said stop and said winding mechanism share common structure.

Please amend Claim 40 as follows:

40.(Amended) A cutting head comprising:

a housing:

a spool rotatably mounted in said housing, cutting line being windable on said spool;

a feed mechanism for rotating said spool in an unwinding direction in said housing and feeding cutting line off of said spool;

a winding mechanism for rotating said spool in a winding direction while said spool is in said housing and winding cutting line onto said spool, said winding mechanism including teeth on rotatable with said spool and teeth on said housing, said teeth having a shape to slide past each other when said spool is wound in said winding direction, said shape of said teeth blocking rotation of said spool with respect to said housing in said unwinding direction;

a stop connected to said housing and blocking separation of said spool from said housing during winding of cutting line by said winding mechanism, said stop including a support connected to said housing, said support rotatably holding said spool between said housing and said support.

REMARKS

The specification, drawings and claims have been amended to improve the style of this application.

Applicant thanks the Examiner for the detailed description of the rejections, for

indicating that certain rejections have been obviated, and for providing suggestions.

In the Amendments to the specification, clean replacement paragraphs have been provided, as well as marked-up paragraphs. The basis for the marked-up paragraphs has been the version of the paragraphs after the April 26, 2001 Amendment. In other words, the basis for the marked-up paragraphs includes all of the amendments made to those paragraphs up to and including the April 16, 2001 Amendment.

The specification has been amended to indicate that the housing is represented in the preferred embodiment of the drawings by reference 3, as suggested by the Examiner. Applicant does not wish to limit the housing of the claims to just the shape and size of element 3. Instead the housing of the claims is to include all structure which a person of ordinary skill in the art would consider a housing type structure and has the relationships of the housing as set forth in the claims. An example of one type of variation of a housing would be elements 103 and 106 in Figures 3 and 4. Element 103 is a main portion of a housing and element 106 is a cover. This is described in the specification on page 9 lines 29 - 32. Applicant notes that the embodiment of Figure 1 has a cover 25 which some people could consider to be part of the housing. Therefore it is Applicant's position that the term housing, is broad enough to encompass element 3, with or without element 25.

The stop means in claim 1 has been rejected as being vague and indefinite as to what disclosed structure it refers. Applicant notes that the specification on page 6 line 28 was amended on December 26, 2000 to indicate that a preferred embodiment of the stop is shown by journal 9. The specification has been further amended at this time to indicate that

component 29 is also part of the stop structure that holds the spool to the housing. In the embodiment of Figure 1, the stop means can be considered to include all the structures of elements 13, especially 13a, spring 17, actuating slider 19, knob 21, journal 9 and hub 7 since together they perform the stop means function.

Journal 9 is attached to hub 7, which is attached to housing 3. Journal 9 holds hub 21 between journal 9 and housing 3. Knob 21 holds the actuating slider 19 between elements 21 and 3. Actuating slider 19 holds spring 17 between elements 19 and 3. Spring 17 biases stop component 13 to housing 3. Stop component 13 holds spool 5 against housing 3. A person of ordinary skill in the art would understand from the specification and drawing that this structure performs the function of the stop means, namely holding the spool in the housing while the line is wound onto the spool. Applicant does not wish the stop of the claims to be limited to the specific structure of Figure 1, but to include all structure a person of ordinary skill would feel performs the functions associated with the stop structure in the claims.

Claim 3 has been rejected due to the term "retention members" being vague and indefinite as to what disclose structure it refers. Applicant notes the retention members of claim 3 can be broadly read on including the elements 7, 9, 21, 19 and 13. All of these elements act against the force of the spring and prevent the spring from escaping when the housing is open. The retention members are set forth as being part of the stop means, and these portions of the stop means also have the additional function of acting against the force of the spring action member and preventing the spring action member from escaping.

Applicant notes that the retention means of claim 3 are not to be limited to the specific size and structure of the elements in Figure 1, but are instead to be broadly read on all structure which performs the function set forth in the claim.

Claim 6 has been objected to with regard to the first and second group of stops. Applicant thanks the Examiner for further describing this rejection. Applicant has amended claim 6 to set forth that the first and second group of stops are rotationally fixed to the housing. In discussing the rejection, the Examiner indicates that the stops can be considered rotationally fixed to the housing. This should now overcome any confusion caused by the phrase "on the housing".

Applicant notes that the first series of teeth integral with the spool can be considered elements 5a in Figure 1. The second series of teeth integral with the spool can be considered elements 5b. In Figure 1, the top portion of element 19a is considered the first stop or part of the first group of stops which engages with the first series of teeth represented by element 5a. The bottom of element 19a in Figure 1 engages with the second series of teeth 5b. Therefore the bottom of element 19a is considered to be the second stop or group of stops. Element 19a therefore has a top portion which in the preferred embodiment of Figure 1, represents the first group of stops, and the bottom portion of element 19a represents the second group of stops in Figure 1.

Claim 40 has been withdrawn from further consideration as being drawn to a non-elected species. In particular the Office Action states that the structure defined by the limitations directed to the winding mechanism found in line 7 - 10 is not present in the

elected species of Figures 1, 2, 2a and 2b. Applicant notes that the winding mechanism is set forth in original lines 7 - 10 as including teeth on the spool and teeth on the housing where the teeth have a shape to slide passed each other in one direction and to block rotation in another direction. Applicant notes that the limitation of the teeth on the spool and the teeth on the housing are intended to indicate that these teeth are on opposite sides of the rotatable connection between the spool and the housing. A rotatable connection between a housing and a spool can be made in many different ways and the concept of the winding mechanism of claim 40 can be applied to the many different types of rotatable connections. What is important, is that one set of teeth is on the housing side of the connection, and the other set of teeth is on the spool side of the connection. The teeth on the spool side rotate with the spool, especially when the feed mechanism is not being used. Applicant has amended claim 40 to set forth that the winding mechanism includes teeth rotatable with the spool. If the Examiner desires, claim 40 can be further amended to set forth that the teeth are on a spool side of the cutting head, and the other teeth are on a housing side of the cutting head.

With this Amendment Applicant is enclosing a Sketch A showing the teeth on the housing in Figures 1 and 2, and the teeth rotatable with the spool in Figures 1 and 2. Applicant notes that the teeth rotatable with the spool, or the teeth on the spool side of the cutting head are indicated by reference 29. The intended limitations to the winding mechanism of claim 40, are therefore present in the species of Figures 1, 2, 2a and 2b. Applicant respectfully requests that claim 40 be considered. If the Examiner has any

comments or suggestions for alternate wording of claim 40, the Examiner is invited to contact Applicant's representative by telephone to discuss possible changes.

The independent claims in the last Amendment have been rejected as being anticipated by Fabrizio. Applicant notes that the independent claims rejected under prior art grounds have been canceled in favor of amended claim 40 which contains the limitations of a winding mechanism with teeth on the housing, and teeth rotatable with the spool. Fabrizio does not teach nor suggest such teeth in a winding mechanism, and therefore claim 40 is not anticipated by Fabrizio. Furthermore Applicant finds no indication in Fabrizio that such teeth would be beneficial, and therefore claim 40 cannot be obvious over Fabrizio.

Applicant thanks the Examiner for further clarifying the rejection in view of Fabrizio. The Examiner indicates how loosening of the retaining screw 10 in Fabrizio allows feature 3 to be lowered and then the winding of the line onto the head can be performed. Applicant now better understands the Examiner's rejection. The Office Action states that while this type of winding operation is not disclosed, it is clearly possible and is thus considered an intended use of the prior art device.

Applicant respectfully traverses any indication that Fabrizio would lead a person of ordinary skill in the art to such a winding operation. A person of ordinary skill in the art would have no indication from Fabrizio that such a winding operation is possible, and instead the discovery of such a winding operation would require inventive effort. It is therefore Applicant's position that Fabrizio does not intend such a winding operation to be used, whether or not such a winding operation is possible.

The present invention is an improvement over the prior art, in that the structure of the present invention makes it much easier to wind a line onto or into a cutting head. This is especially true with regard to the teeth of the winding mechanism allowing rotation in one direction and blocking rotation in another direction. This allows operator's of the cutting head to more easily wind line on to the spool, and thus reduce the time required to operate or maintain the device. This results in a more efficient use of the operators time. Applicant respectfully requests patent protection for this improvement.

If the Examiner has any comments or suggestions which would further favorable prosecution of this application, the Examiner is invited to contact Applicant's representative by telephone to discuss possible changes.

At this time Applicant respectfully requests reconsideration of this application, and based on the above amendments and remarks, respectfully solicits allowance of this application.

Respectfully submitted
For Applicant,

By: _____
Theobald Dengler
Reg. No. 34,575

TD:tf/nn
63286.17
Enclosed: Marked-Up Paragraphs from the Specification
Marked-Up Version of the Claims
Sketch A
Letter Re Drawing Corrections
(1) Sheet of Drawing

Petition for one month Extension of time

DATED: May 17, 2002
SCARBOROUGH STATION
SCARBOROUGH, NEW YORK 10510-0827
(914) 941-5600

SHOULD ANY OTHER FEE BE REQUIRED, THE PATENT AND TRADEMARK OFFICE IS HEREBY REQUESTED TO CHARGE SUCH FEE TO OUR DEPOSIT ACCOUNT 13-0410.

MARKED-UP PARAGRAPHS FROM THE SPECIFICATION

Pages 6 and 7, paragraphs starting on page 6 at line 18 and ending on page 7 at line 4:

A first embodiment of the head according to the invention is illustrated in Figs. 1 and 2. The head has the general reference 1 and comprises a housing ~~a housing portion~~ 3 containing a spool 5 on which is wound a cutting line F, depicted as a series of turns in the longitudinal section of Fig. 1.

The ~~portion 3 of the~~ housing 3 has a cylindrical circumferential wall 3A with bushings 4 through which the cutting line F passes out. Extending axially through the inside of the housing ~~portion~~ 3 is a hub 7 with a threaded portion 7A and a hexagonal-section portion 7B coupled in torsion inside the through seat formed in the ~~portion 3 of the~~ housing 3. The hub 7 is locked to the ~~portion 3 of the~~ housing 3 by a journal or stop 9 that screws onto a second threaded portion 7C of the hub 7 and that has an elastic ring 11.

Fitted onto the hub 7, and journal 9 is a stop component 13 that forms a support for the spool 5, being provided with a collar 13A on which the spool 5 sits. The support 13 is held against the ~~portion 3 of the~~ housing 3 by a spring-action member consisting of a helical spring 17 housed in a cylindrical seat formed in the support 13. Inside this cylindrical seat is a moveable actuating slider 19 with projections 19A that project through longitudinal slots 13X in the cylindrical wall of the support 13.

Page 7, paragraph starting at line 26 and ending at line 32:

-- Around the collar 13A supporting the spool 5 is a basically cylindrical closing wall 13B on which is mounted an annular cover 25. This cover has an edge 25A that surrounds the free edge of the circumferential wall 3A of the housing ~~portion~~ 3. The cover 25 may be held in position by its interference with the closing wall 13B and/or by interference between the edge 25A and the circumferential wall 3A, or by means of spring-action projections (not shown in Figures 1 and 2).--.

Pages 8 and 9, paragraphs starting on page 8 at line 15 and ending on page 9 at line 4:

-- Having secured the ends of the line in the holes 5D, the operator, by twisting the closing wall 13B of the spool support 13, can rotate, in the winding direction, the assembly made up of the button 21, the actuating slider 19, the support 13 and the spool 5 around the hub 7 axis. Rotation in the winding direction is permitted by the shaping of sawtooth section end teeth 29 formed on that portion of the support 13 which is pushed against the housing ~~portion~~ 3, the latter having complementary teeth, as can be seen in particular in the cutaway view, Fig. 2.

The reverse rotation between the support 13 and the housing ~~portion~~ 3 (the direction in which the line in unwound) is not permitted, so that spontaneous rotation in the line unwinding direction is prevented, not only during rewinding of the supply of line but also when the head is in operation. The teeth 29 and the complementary teeth on the housing ~~portion~~ 3 thus form an anti-rotation means for rotating in a winding direction, but not in an unwinding direction.

The system of mutual locking between the housing ~~portion~~ 3, the support 13 and the knob 21 may differ from this. For example, the central hub 7 may be omitted and the connection may be provided by a system of spring-action fingers. Similarly, the connection between the head and the brushcutter may be provided by a snap-engaging quick-coupling system or the like, of a type known per se, rather than by means of a threaded journal. Similarly, the knob 21 and the actuating slider 19 may be constructed in one piece. The journal 9 may be screwed in by a socket wrench passing through a hole in the knob 21, or the latter may be coupled in torsion to the journal 5 to enable it to rotate.--.

Page 9, paragraph starting at line 18 and ending at line 20:

Also shown in Figs. 2A and 2B are spring-action tabs 6 formed integrally with the housing ~~portion~~ 3. These are for fastening the annular cover 25 (omitted in Figs. 2A and 213) in place.

MARKED-UP VERSION OF THE CLAIMS

2. (Amended) Grass-cutting head as claimed in claim ~~1~~40, wherein:
said feed mechanism includes a spring-action member;
said stop ~~means~~ opposes action of said spring-action member when the head is opened to render said spool accessible from the outside.

3. (Amended) Grass-cutting head as claimed in claim 2, wherein:
said stop ~~means~~ includes retention members that act against the force of said spring-action member, preventing said spring action member from escaping from the housing when the housing is open to enable said supply of cutting line to be wound onto the spool.

5. (Amended) Grass-cutting head as claimed ~~1~~40, wherein;
said feed mechanism comprises stop teeth integral with the spool and arresting stops engaging with said stop teeth to define angularly offset positions of the spool;
said feed mechanism includes an actuating slider is provided to engage and disengage of said stop teeth and said arresting stops causing an angular step by step rotation of said spool, the action of the actuating slider being opposed by a spring-action member.

6. (Amended) Grass-cutting head as claimed in claim ~~1~~40, wherein:
said feed mechanism comprises in combination an actuating slider, a first series of teeth integral with said spool and a second series of teeth integral with said spool, teeth of the first series engaging with a first stop or group of stops ~~on~~rotationally fixed to said housing and teeth of the second series engaging with a second stop or group of stops ~~on~~rotationally fixed to said housing, positions of arrest of said spool defined by the first series of teeth and by the first stop or group of stops being angularly offset relative to positions of arrest of said spool defined by the second series of teeth and by the second stop or group of stops;
and movement of said actuating slider causes an axial movement of the spool between two positions to bring the teeth of the first series or the teeth of the second series alternately into engagement with their respective stops, the spring-action member exerting a force on the spool .

7. (Amended) Grass-cutting head as claimed in claim ~~1~~40, wherein said feed mechanism comprises two series of stop teeth integral with said spool and engaging with moveable stops actuated by an actuating slider, action of said actuating slider being opposed by a spring-action member.

8. (Amended) Grass-cutting head as claimed in claim 7, wherein:
said housing includes a ~~first~~ housing portion; through which extends an axial hub of a rotary drive, and said spool being placed in said ~~first~~ housing portion;

~~a support supporting said spool, said support being mounted on said axial hub and elastically pressed against said first housing portion by said spring-action member;~~

axially elongate openings in said support, through which pass said moveable stops carried by said actuating slider and engage with the teeth on the spool; and

an annular cover closes said housing and extends around the support for said spool.

9. (Amended) Grass-cutting head as claimed in claim 8, wherein said support has end teeth engaging with corresponding end teeth on said ~~first~~ housing portion.

36. (Amended) Grass-cutting head as claimed in claim ~~1~~40, wherein said spool has projections to facilitate rotation of the spool by hand in the housing in order to cause the supply of line to be wound up.

38. (Amended) A cutting head in accordance with claim ~~37~~40, wherein:

~~said winding mechanism blocks unwinding of cutting line from said spool;~~

said feed mechanism bypasses said winding mechanism to feed cutting line off said spool.

39. (Amended) A cutting head in accordance with claim ~~37~~40, wherein:

said stop and said winding mechanism share common structure.

40. (Amended) A cutting head comprising:

a housing;

a spool rotatably mounted in said housing, cutting line being windable on said spool;

a feed mechanism for rotating said spool in an unwinding direction in said housing and feeding cutting line off of said spool;

a winding mechanism for rotating said spool in a winding direction while said spool is in said housing and winding cutting line onto said spool, said winding mechanism including teeth on rotatable with said spool and teeth on said housing, said teeth having a shape to slide past each other when said spool is wound in said winding direction, said shape of said teeth blocking rotation of said spool with respect to said housing in said unwinding direction;

a stop connected to said housing and blocking separation of said spool from said housing during winding of cutting line by said winding mechanism, said stop including a support connected to said housing, said support rotatably holding said spool between said housing and said support.